PCN24

TREATMENT AND RESPONSE PATTERNS IN CHRONIC MYELOID LEUKEMIA: EVIDENCE FROM A RETROSPECTIVE STUDY IN CANADA, AUSTRALIA, AND SOUTH KOREA

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OBJECTIVES: To evaluate treatment and response patterns among patients with chronic myeloid leukemia (CML) in Canada, Australia, and South Korea (S.Korea). **METHODS:** Oncologists and hematologists in Australia (N=31), Canada (N=28), and South Korea (N=34) abstracted medical records of adults with CML between 1/1/2005 and 9/30/2010. Patient selection criteria included: chronic phase at diagnosis, either Ph+ or BCR-ABL+, received 1st-line imatinib, and had not participated in a clinical trial. A subset received 2nd-line therapy with nilotinib or dasatinib. Rates of complete hematological response (CHR) at 3 months, complete cytogenetic response (CCyR) at 12 months, and complete or major molecular response (CMR/MMR) at 18 months were assessed, stratified by 1st- and 2nd-line therapy. **RESULTS:** Data on 610 patients (~200/country) were collected. Patients' mean age was 57 years and 59% were male. Patients received 1st-line therapy for 23 months on average (range: 16 [Canada] to 27 [S.Korea]). Among patients on 1st-line therapy, 78% had CHR at 3 months of treatment (67 [Australia] to 86 [Canada]), 48% had CCyR at 12 months (range: 42% [Australia] to 60% [S.Korea]), and 70% had CMR/MMR at 18 months (67 [S.Korea] to 77 [Australia]). Approximately 10% of patients (7% [Canada] to 14% [Australia]) had dose escalation to a median dose of 600mg. Twenty-two percent of patients discontinued imatinib (17% [S.Korea] to 27% [Australia]). Among those who discontinued, the most common reason was intolerance in Australia (60%) and Canada (37%), and other/no response in S.Korea (25%). Eighty-seven patients had 2nd-line treatment (68 dasatanib, 19 nilotinib). S.Korea had a greater proportion of 2nd-line nilotinib use (41%) than Australia (22%) and Canada (12%), and the mean time to 2nd-line therapy was 22 months post-diagnosis. **CONCLUSIONS:** This study further illustrates cross-country variations in CML treatment and response patterns, and emphasizes the need to understand CML populations in individual countries.

PCN25

A POPULATION-BASED PREDICTION OF BREAST CANCER IN RUSSIAN FEDERATION: ANALYSIS HER2-STATUS GROUPS FOR TARGET TREATMENT

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OBJECTIVES: The significance of state-funded cancer treatment programs, including targeted breast cancer medication, makes the prediction of incidence dynamics very important. Therefore, we have made an attempt predict to indices of breast cancer among the Russian population up to the year 2020, provided that HER2-status groups will be identified. **METHODS:** Basing on the analysis of dynamics of prevalence, incidence and the outcomes of breast cancer in Russia, national statistics data, and HERA study results, we have developed a dynamic diagnostic-related model for breast cancer, in which the patients were grouped according to clinical settings and HER2-status. **RESULTS:** We have determined that the annual increase of incidence and prevalence in Russia is 2.25% and −3.4%, respectively; the share of initial breast cancer is 18%; 35% patients were diagnosed breast cancer of III and IV stages. Taking this as a constant, we have predicted the absolute prevalence in 2015 as 596 661, and 702 533 patients in 2020 Our prediction of the number of patients with HER2 hyper-expression for the period up to 2015 is based on the assumption that the average expected prevalence of HER2+ hyper-expression will be 15%. Based on the above mentioned indices, the prevalence of HER2+ breast cancer will be 89 499 patients by the year 2015, while the annual incidence of HER2+ initial breast cancer will amount to 7 958 patients. **CONCLUSIONS:** A growing tendency of prevalence and incidence of breast cancer in Russia has been identified; this will require additional expenditure for the treatment of such patients, including target therapy (e.g., trastuzumab).

PCN26

GEOGRAPHIC VARIATION ASSOCIATED WITH COLORECTAL CANCER PREVALENCE IN THE UNITED STATES

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OBJECTIVES: To examine the geographic variations associated with the annual prevalence of colorectal cancer in the U.S. veteran population. **METHODS:** The study sample was based on an analysis of the Veterans Health Administration (VHA) Medical SAS datasets from 2009 through 2011. All patients diagnosed with colorectal cancer throughout the study period were identified using International Classification of Disease 9th Revision Clinical Modification (ICD-9-CM) diagnosis codes 153.xx and 154.xx. Descriptive statistical analyses were performed using SAS v9.3 software. **RESULTS:** Washington DC and Puerto Rico held prevalence rates either at or above 0.6% throughout the 3-year study period, while Alaska and Utah maintained prevalence values below 0.3%. Although 12 states (including Washington DC) showed a decrease in colorectal cancer prevalence from 2009 to 2011, a progressively increasing prevalence of the disease was observed in Ohio (2009: 0.596%; 2010: 0.597%; 2011: 0.602%), Guam (2009: 0.181%; 2010: 0.224%; 2011: 0.240%), and Alaska (2009: 0.219%; 2010: 0.235%; 2011: 0.252%). Two out of the three states/territories with progressively increasing prevalence were in the lowest risk category (less than 0.3%). **CONCLUSIONS:** U.S. veterans living in Puerto Rico and in the Southern and Mid-Atlantic regions (including West Virginia, Massachusetts, Washington DC) had a high regional prevalence pattern of colorectal cancer from 2009 to 2011. The geographic variation in risk areas can help identify important geographically connected prognostic factors, aid in targeted intervention strategies directed at high risk areas, and generate hypotheses about the underlying causes of colorectal cancer in the United States and associated territories.

PCN27

ANALYSIS OF PREVALENCE AND TREATMENT OF MULTIPLE MYELOMA IN GERMAN STATUTORY SICK FUNDS CLAIM DATA

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OBJECTIVES: There is no central registry for patients with multiple myeloma in Germany and data from regional registries can be biased. Since data from sick funds are recently available, these were used to compare prevalence, co-morbidities and treatment rates of multiple myeloma patients with data from cancer registries. **METHODS:** Three German statutory health insurances (SHI) with 1.780.000 beneficiaries were analyzed for patients diagnosed with multiple myeloma (MM) (ICD-10 C90.0) in 2008-2010. Treatment was identified for outpatients by prescriptions with ATC Codes L01x (antineoplastic agents) and H02A (corticosteroids). Co-morbidities were expressed by Hierarchical Condition Categories. **RESULTS:** A total of 746 patients had a confirmed diagnosis of multiple myeloma, 53% female and 47% male. The highest incidence for myeloma was between 65 and 80 years. 35% were hospitalized with no information on treatment. Of the outpatients, 10% received a treatment identified by ATC Code L01x (preparations of parenteral chemotherapy not included). Most prominently elevated co-morbidities of MM patients compared to all other patients aged 55 -85 years were anemia (41% vs. 7%), osteoporosis (41% vs. 18%), renal failure (31% vs. 7%), depression (23% vs. 11%) and infectious diseases (38% vs. 19 %). A higher rate of patients received dexamethasone rather than prednisone (41% vs. 28%). The most frequently used antineoplastic agents identifiable by ATC were lenalidomide (16%), followed by melphalan (6%) and bortezomib (5%). **CONCLUSIONS:** The age- and gender adjusted and to the German population extrapolated prevalence of 34.000 patients was higher than reported prevalence numbers of 13.500 patients (5-year prevalence with 41% relative 5 year survival rate). The age distribution is consistent but the gender distribution was slightly different from reported numbers1. Patient shares for melphalan and bortezomib are likely to be underreported because parenteral preparations were not identifiable. Treatment judged for outpatients revealed a higher share of patients who received 2nd line treatment for multiple myeloma rather than a 1st line therapy.

PCN28

STATIN USE AND RISK OF BREAST CANCER: A META-ANALYSIS OF 24 OBSERVATIONAL STUDIES

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OBJECTIVES: Growing body evidence suggests that statins may decrease the risk of cancers. However, available evidence on breast cancer is conflicting. We therefore examined the association between statin use and risk of breast cancer by conducting a detailed meta-analysis of all observational studies published regarding this subject. **METHODS:** PubMed database and bibliographies of retrieved articles were searched for epidemiological studies published up to January 2012, investigating the relationship between statin use and breast cancer. Before meta-analysis, the studies were evaluated for publication bias and heterogeneity. Pooled relative risk (RR) and 95% confidence interval (CI) was calculated using random-effects model (DerSimonian and Laird method). Subgroup analyses, sensitivity analyses and cumulative meta-analysis were also performed. **RESULTS:** A total of 24 (13 cohort and 11 case-control) studies involving more than 2.4 million participants and 76,759 breast cancer cases contributed to this analysis. We found no evidence of publication bias and evidence of heterogeneity among the studies. Statin use and also long-term statin use did not significantly affect breast cancer risk (RR = 0.99; 95% CI = 0.94-1.04; P = 0.69 and RR = 1.03; 95% CI = 0.96-1.11; P = 0.42, respectively). When the analysis was stratified into subgroups, there was no evidence that study design, confounder's adjustments and previous meta-analysis substantially influenced the effect estimates. Sensitivity analyses confirmed the stability of our results. Cumulative meta-analysis showed a change in trend of reporting risk of breast cancer from positive to negative in statin users between 1993 and 2011. **CONCLUSIONS:** Our meta-analysis findings do not support the hypothesis that protective effect of statins against breast cancer. More randomized clinical trials and observational studies were needed to confirm this association with underlying biological mechanisms in future.

PCN29

INITIAL TREATMENT AND SURVIVAL AMONG ELDERLY PATIENTS WITH ADVANCED BREAST CANCER BY ESTROGEN RECEPTOR AND PROGESTERONE RECEPTOR STATUS: AN ANALYSIS OF UNITED STATES NATIONAL REGISTRY DATA 2000-2009

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OBJECTIVES: To study initial treatment and survival among elderly patients with newly diagnosed Stage IV breast cancer, by estrogen receptor (ER) and progesterone receptor (PR) status. **METHODS:** The linked Surveillance and Epidemiology End Results-Medicare (SEER-Medicare) database was used for this analysis. We identified female patients newly diagnosed with Stage IV breast cancer in a SEER registry between January 2002 and December 2007. Study patients were required to be aged 66+ years with no prior history of any other (non-breast) cancer. Patients were